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Professor Griffith-Jones has given an erudite and careful presentation of the financial markets on which developing countries receive credits. She has especially emphasized the role of the International Monetary Fund (IMF) and its auxiliary agencies in this process. As she notes, these markets have been plagued by monetary and banking crises which have required rapid intervention that have frequently led to considerable drops in the real incomes of the borrowing countries.

Some developing countries have insulated themselves from world financial markets, by diverse channels. India and China have not had currency crises but have had strong controls on foreign exchange transactions. Chile has erected special barriers to short-term foreign borrowing, the kind thought to be most susceptible to quick changes of direction; though it has liberalized the economy and foreign trade, it has not had a currency crisis.

For the present discussion, I will not follow Professor Griffith-Jones into the institutional details of the monetary system of which the IMF is a basic part; they would not suit this audience and, to be frank, I am no expert in these matters and certainly defer to Professor Griffith-Jones's clearly superior knowledge. Instead, I will give the reactions of a general economist to the problem of liquidity crises for developing countries and to some aspects of professor Griffith-Jones's policy proposals.

Liquidity crises are akin to an economic problem historically more common in the United States than in Europe, bank runs. A bank borrows money from its depositors and lends to debtors, usually business in need of short-term credit. However, in principle, the depositors can retrieve their money or demand, while the banks' debtors have varying time periods to repay, measured in months or even years. If, for any reason, the depositors

believe that the bank may have difficulty repaying them, then each individual depositor will have an incentive to withdraw money before the bank fails. Since the bank has lent money, it certainly does not have enough on hand (in reserves) to repay all its depositors; hence it will fail when enough depositors withdraw their money. This means that it is in the interest of each depositor to withdraw money before the others do. It does not require any serious knowledge of game theory to understand that even a weak possibility of a bank failure believed by depositors will cause the bank to fail.

This possibility might arise even if in fact the bank's loans were all perfectly sound, provided a false rumor started. But obviously the run is even more probable if there is some hard evidence that some loans are likely to go bad. To get higher returns, banks do lend to firms where there is some risk of failure; indeed, it is socially desirable to encourage some risky investments. If overall economic conditions turn bad, depositors may have good reason to believe that many of the bank loans will not be repaid, and so start a bank run.

Government policies can be and have been directed towards meeting this problem. One is regulation, to require that banks maintain adequate reserves and to recognize loans that are unlikely to be repaid. In recent times, there have been attempts at more sophisticated rating of the risks of debt default, and the Basle accords, to which Professor Griffith-Jones referred, extend this risk-rating to an international level. Another policy is deposit insurance, by which depositors will be guaranteed the value of their deposits in event of bank failure, so that they will have no incentive to withdraw their money to protect themselves. Then many bank runs will be avoided altogether.

The drawback to insurance measures is that the banks will be able to take more risks in their loans without suffering the consequences of deposit withdrawals. There is a general principle that any form of insurance, desirable in itself, will lead to excessive risk-taking in one way or another; this principle is known in the insurance literature as *moral hazard*, and the term has entered into general economic analysis.

The lesson of this lengthy exposition is that the principle of the bank run is much the same as that of a run on a country's currency. There are many financial institutions and individual investors who lend to a developing country, say, Indonesia. A good portion of this lending is for fairly short periods. It is normally expected that when due, the notes are renewed, but this is at the option of the lender (who is here like a depositor). The obligation to repay is usually denominated in dollars. The country ordinarily tries

to keeps its currency more or less fixed in dollars, so that its business will know what they must earn to repay. Suppose that the creditors know or even believe that there will be a fall in the currency (the rupiah, say). They fear that their Indonesian debtors may have some difficulty repaying. As the loans fall due, they insist on repayment in dollars. The demand for dollars by Indonesians leads to pressure on the exchange rate, and it starts falling. This leads to increased difficulty in repayment, more insistence by creditors on repayment, and so on in downward spiral. To stop the spiral, interest rates in Indonesia have to increase to make it more attractive to hold money there. But this increase has an adverse affect on business in Indonesia, leading to a fall in income produced there and frequently some unemployment (However, this fall is partly offset by the fact that Indonesian products are now cheaper in dollar terms, because of the fall in the foreign exchange rate, and therefore exports may be increased).

The equivalent of deposit insurance is the possibility of Indonesia's borrowing from the International Monetary Fund. However, the Fund, to insure the success of its rescue operation, insists on conditions which reduce the outflow of money, in particular, the higher interest rates and other measures which reduce the demand for imports. These measures will reduce income in the borrowing country. It is sometimes argued that they will therefore make foreign investment less profitable and therefore interfere with the necessary return of the country to a successful borrowing relation. As Professor Griffith-Jones points out, a number of economists, including Joseph Stiglitz, former Chief Economist for the World Bank, and Jeffrey Sachs, of Harvard, objected to the Fund's restrictionist policies in the Asian crisis on those grounds.

I was sympathetic to the Stiglitz-Sachs position at the time, but the quite rapid recovery of the Asian nations since then has given me more respect for the so-called 'Washington consensus' position. In any case, the Fund in application took a much more moderate position than it had first announced.

There has developed a position that the Fund should be abolished completely. This position, curiously enough, is held both by those on the Right, who think that the developing countries should depend solely on private capital markets (e.g. Allen Meltzer or the former Secretary of State, George Shultz), and the protesters at Seattle and Prague, who hold that the Fund is an instrument by which advanced country capitalism controls the developing world. The logic of the Right is better; the protesters do not seem to understand that abolishing the Fund leaves only

private sources of capitalism. I am glad to see that Professor Griffith-Jones does not accept this alternative.

Clearly, giving the IMF enough funds to take care of a liquidity crisis is one component of a sound policy for dealing with crises. The knowledge that this remedy exists, like deposit insurance, will prevent crises from occurring and end those that happen earlier. It is also clear that another component is greater knowledge, 'transparency', as the current popular expression has it. Seeing that the foreign exchange reserves of a country are declining will caution foreign investors to curb their investments and therefore mitigate the subsequent panic which leads to a currency crisis.

Professor Griffith-Jones's recommendations embody these components. I will not comment on her program in too much detail, in view of my own limited knowledge of the field, but I will make some remarks. I must emphasize one of her remarks, 'it is important that low-income countries, donors, and international organizations collaborate to help attract more significant private flows to them'. A reaction against currency crises cannot take the form of cutting off foreign investment, a key to economic development, especially for smaller and therefore more open economies.

I certainly agree that regulation in some form is essential to regularize foreign capital movements and to prevent them from being a source of instability. That is accepted as true for domestic capital markets, and it is equally true for foreign markets. Of course, international regulation differs in one very important way from domestic regulation; there is no sovereign entity. Hence, the regulations have to be developed by negotiation, with all the problems of differential power that Professor Griffith-Jones calls attention to.

I am not sure I understand all the proposals made. The author wants to impose restrictions on lenders as well as borrowers, in particular, on institutional investors like mutual funds. Restrictions on banks have usually arisen to protect their customers, not their lenders. Since mutual funds have no fixed obligations, they do not need reserve requirements for the same purpose. The author seems to think that such requirements will protect the borrowers; but I am afraid I do not see why they will. In any case, a very large portion of the lending has been by individual investors, including to a very considerable extent nationals of the borrowing country. They buy dollars and then lend them to other business in their own country; they are among the first to take their money out of the country. Indeed, as Professor Griffith-Jones points out with regard to highly leveraged institutions (so-called hedge funds), institutional

investors may well have longer horizons and therefore hold fast in a panic, because they can anticipate a recovery.

The market itself has generated one informational device, credit rating by private agencies. The author suggests, evidently with good evidence, that the credit ratings rarely anticipate a downturn but instead follow it, adding to the problem. But this observation raises questions about a proposal for contra-cyclical regulation; is it all likely that the regulators will be any better at the needed forecasting than the private rating agencies? A general provision for higher allowances for possible losses, as she suggests, would be a sound idea.

These questions are part of a more general and well-known policy problem: how much discretion should a regulatory authority have? The objection to discretion is that the authority is very apt to be wrong and therefore exacerbate the problem rather than reduce it.

Finally, I observe the proposal of international governance, that the borrowing countries have more role in setting regulations. To be blunt about it, the question is one of governance, as Dr. Braga de Macedo has brought to our attention in another session of this meeting. The principle that the rules of the international capital markets be set by all participants is one that is hard to resist, and I for one find it very attractive. The question I must leave is the degree to which the national governments of many of the developing countries, particularly those most in need, represent the interests of their peoples.